



REPORT FOR ACTION

Amendment to Purchase Order No. 6044338 for Toronto City Hall Building Envelope Improvements

Date: February 19, 2019
To: General Government & Licensing Committee
From: Interim General Manager, Facilities Management &
Chief Purchasing Officer
Wards: Ward 10 - Spadina-Fort York

SUMMARY

The purpose of this report is to request authority to amend Purchase Order No. 6044338 issued following award of Tender No. 300-2016 to Phoenix Restoration for building envelope improvements on the first, second, and third floors of City Hall, including the council chambers. The total Purchase Order Amendment being requested is for an additional amount of \$2,590,993, net of all applicable taxes and charges (\$2,636,594 net of HST recoveries).

The original project scope of work incorporated stakeholder requirements and site conditions identified through consultation and due diligence conducted prior to contract award, including a review of building drawings and investigative openings to confirm construction details and ascertain site conditions. The requested amendment addresses work that was added to the current project to realize efficiencies and avoid costs or disruptions associated with re-tendering and remobilizing construction in the future, as well as changes to the original scope of work necessary to meet heritage or code requirements. These added items and project modifications provide important benefits to the City including enhanced security for City Hall occupants, mitigation of disruptions to council chamber operations, and preservation of the heritage nature of the building.

The requested amendment is also required to address costs to remediate concealed site conditions attributable to the age of the building and the original construction methods and materials, including additional asbestos, salt corrosion, and curtain wall characteristics not identified during the due diligence process. If not completed as part of the current project, this remedial work would have been required prior to completing curtain wall improvements at a later date. This work also supports ongoing efforts to manage asbestos and other designated substances to ensure the safety of building occupants.

To address scope changes and the remediation of concealed site conditions, the project has been extended to October 2019. Therefore, the contract value must be increased to accommodate increases in the cost of labour, materials, and project administration.

Once completed, this project is expected to reduce maintenance requirements in the future, improve the air sealing of the building and increase its energy efficiency, and more effectively dampen noise from Nathan Phillips Square and adjacent areas.

RECOMMENDATIONS

The Interim General Manager, Facilities Management and the Chief Purchasing Officer recommend that:

1. General Government & Licensing Committee, in accordance with Section 71-11.1C of the City of Toronto Municipal Code Chapter 71 (Finance Control By-Law) grant authority to amend Purchase Order No. 6044338 issued to Phoenix Restoration, for the scope changes requested by Heritage Preservation Services, Corporate Security and Facilities Operations, additional work related to the unforeseen conditions, and cost increases associated with project delays by an additional amount of \$2,590,993 net of all applicable taxes and charges (\$2,636,594 net of HST recoveries), revising the current Purchase Order value from \$5,753,700 to \$8,344,693 net of all applicable taxes and charges (\$8,491,560 net of HST recoveries).

FINANCIAL IMPACT

Funding for the requested Purchase Order Amendment amount of \$2,636,594 net of HST recoveries is available in the Council approved 2018 Facilities Management, Real Estate, Environment & Energy Capital Budget and 2019-2027 Capital Plan and is within the approved overall project budget of \$9.125 million under WBS element CCA218-06 "100 Queen W - Concrete Soffit Slats & Other" and \$4.153 million under WBS element CCA250-12 "SOG on Interior Systems G1".

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

On November 23, 2016, Bid Committee Meeting BD111.12 adopted the recommendation to award Tender No. 300-2016 to Phoenix Restoration, for Toronto City Hall Building Envelope Improvements at 100 Queen Street West, being the lowest bidder meeting the requirements of the tender.

The Bid Committee decision can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.BD111.2>

COMMENTS

Project Overview

The project scope includes interrelated building envelope improvements on the first, second, and third floors of City Hall (including the council chamber), including window replacements, spandrel panel replacements, concrete repairs and associated improvements to the building envelope's air leakage resistance, thermal efficiency and sound-proofing.

Once completed, this work will rehabilitate the building envelope and is expected to reduce maintenance costs in the future. It will also increase City Hall's energy efficiency—resulting in environmental benefits and energy cost savings estimated at \$25,000 per year—and improve the comfort of City Hall occupants. In addition to these benefits, acoustic testing has confirmed that the renovated curtain wall will better dampen sound from Nathan Phillips Square and adjacent areas.

Stakeholders were consulted prior to the start of the project, including building occupants, City Hall Facilities Operations staff, and City Planning (Heritage Preservation Services). Based on feedback received from stakeholders, the scope of work was finalized and the tender was issued. Following a competitive tender process, a Purchase Order was awarded to Phoenix Restoration for \$5,253,700 net of all taxes and charges (\$5,346,165 net of HST recoveries) in December 2016.

Changes to Project Scope Following Contract Award

Following contract award, the project scope was modified to accommodate additional requests from City Planning (Heritage Preservation Services), Corporate Security, and City Hall Facilities Operations staff. This additional work was included because either 1) it could be completed more efficiently as part of the current project, as construction was already underway or 2) the work was necessary to meet heritage and/or code requirements.

Additional scope to realize efficiencies and minimize disruption

By adding certain items to the project scope, staff were able to realize efficiencies and avoid costs or operational disruptions associated with re-tendering and re-mobilizing construction at a later date. To enhance the security and safety of City Hall occupants, the addition of a window film has been incorporated into the project scope of work at the request of Corporate Security. Facilities Management (FM) Operations staff also requested the fabrication of a spare set of doors, which will allow FM Operations to minimize disruption to City Hall operations in the event of future door malfunctions or failures. These scope changes have not contributed to project delays and are estimated to result in cost savings of 15 percent.

Scope changes required to meet heritage and code requirements

Although the installation of new double-pane council chamber windows was included in the original scope of work, Heritage Preservation Services required modifications to the window design post-contract award due to concerns about the visual impacts of changing from single pane to double pane windows. While these scope changes were added to the project resulting in additional costs and project delays, the modifications will ensure that the new windows more closely match the originals and will help preserve the heritage nature of the building.

At various points since the construction of City Hall, individual spandrel panels had been replaced to address maintenance issues. These replacement panels did not conform to the original design, contributing to inconsistency in the appearance of the curtain wall. Following contract award, Heritage Preservation Services requested that these panels be replaced with new ones that matched the original design, allowing for greater consistency in the appearance of the curtain wall. This work was subsequently added to the project scope at an additional cost.

The project team has further determined that modifications to the third floor City Hall tower and council chamber doors will be necessary to ensure compliance with heritage and code requirements. The requested amendment provides for additional contract value to complete this work.

Remediation of Concealed Site Conditions

Prior to finalizing the project scope of work and issuing the tender, FM performed due diligence including a review of existing drawings, a review of documentation from the previously-completed City Hall tower window replacement project, the results of annual assessments of asbestos-containing materials, and the removal of select windows to confirm the details of their construction and underlying site conditions. This follows regular practice to conduct invasive due diligence at a sample set of locations in order to minimize the impact to the building occupants and operations. The original scope of work accounted for site conditions identified through the investigative removal of windows.

Once construction began, contracted staff uncovered concealed site conditions that were not identified through due diligence performed prior to the contract award. These site conditions included unexpected asbestos found on the hidden backside of the spandrel panel assembly. Salt corrosion hidden at the base of the existing ground floor curtain wall system was also discovered and required significant repair.

Furthermore, upon disassembly of the former curtain wall system, it was determined that additional work would be required to ensure compatibility between the existing curtain wall system and the new windows. The former curtain wall system had shallower than normal openings and used shorter fasteners to attach existing components. The new fasteners were longer and required additional drilling to provide the necessary depth to ensure the windows would be safely secured.

Project Extension Costs

The target completion date for the project has been extended to October 2019 due to scope changes requested by stakeholders and the remediation of concealed site conditions.

The contract value must be increased to account for costs resulting from the project extension, including inflationary increases to labour and materials costs, the extension of the insurance bond, and new aluminum tariffs that took effect in spring 2018.

Required Purchase Order Amendment

In fall 2018, staff increased the value of the Purchase Order by \$500,000 net of all taxes and charges under delegated authority, thereby avoiding further construction delays that would have resulted in additional costs and disruption to building occupants. To complete the project, an additional \$2.6 million is required. Table 1 outlines both amendments, including actualized and estimated costs by category.

Table 1: Breakdown of contract amendments (excluding all taxes and recoveries)

Item	Amendment 1	Requested Amendment 2	Total (All Amendments)
Scope added to realize efficiencies		\$ 362,958	\$362,958
Scope changes required to meet heritage and code requirements	\$6,687	\$1,033,333	\$1,040,020
Costs associated with project extension (e.g. labour/material price increases, insurance bond extensions)	\$60,530	\$589,774	\$650,304
Remediation of concealed site conditions	\$417,292	\$320,419	\$737,711
Additional contingency	\$15,491	\$284,509	\$300,000
Total	\$500,000	\$2,590,993	\$3,090,993

If approved, the requested amendment will allow construction to proceed with completion expected in October 2019.

Continuous Improvement

FM is committed to continuous improvement. The project team has shared the lessons learned from this project with all FM Project Management Office staff so that they may apply relevant learnings to ongoing and future projects, especially those that impact heritage facilities.

The division has recently implemented improvements to its project planning, due diligence, and change control processes, which will ensure full accountability for scope changes and will decrease the likelihood of unexpected costs due to concealed site conditions.

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